

Section 112, first paragraph, rejection

The prior set of claims stood rejected under Section 112, first paragraph, as not providing enablement of all conditions that decrease the weight of *Agrobacterium* inoculated explants. Applicants respectfully traverse this rejection and request reconsideration.

As is well understood, Applicants burden regarding enablement is to provide "objective enablement" of the claimed invention. This Applicant has clearly done as evidenced by the discussion in the specification such as at pages 15 and 16 as well as in the specific examples. The Patent Office has not provided any scientific evidence supporting its assertions or any valid reasoning substantiating the doubts it has expressed. Applicants' claims must be read in light of what is described in the specification and not just what is exemplified. Applicant is not obligated to test all possible permutations of its invention and should not be construed as a lack of guidance when the specification describes various alternatives and it would not require undue experimentation to test such alternatives.

In the interest of advancing prosecution on this application, however, Applicant has provided an amended set of claims for consideration. It is submitted that these claims are fully enabled by the specification and are not of a breadth that would require undue experimentation by one skilled in the art to practice the invention in its full scope. Support for the amendments to the claims can be found throughout the specification such as on page 15, lines 9-24, and in the Examples. Reconsideration is requested.

Section 102 rejections

The Patent Office has presented four separate rejections of the prior set of claims under Section 102(b). Each of these rejections is respectfully traversed and reconsideration requested in view of the newly amended claims.

The first rejection is based on Uze et al. The Patent Office has asserted that Uze teaches a method of co-culture under plasmolysis conditions. As now amended, the claims require the co-culture to be conducted in the absence of media and it is clear that Uze requires media to perform its plasmolysis step (see pp 88-90). Thus, Uze does not and cannot anticipate the amended claims as it does not disclose each element of the claimed invention as now amended. Withdrawal of this rejection is respectfully requested.

The next rejection is based on Hiei et al. The method of Hiei also requires a media throughout its transformation process (see for example the Experimental procedures section on pages 279-280) and is thus distinguished from the now claimed invention as it does not describe each element of the claimed invention. This rejection must be withdrawn.

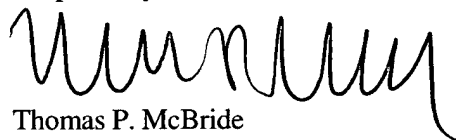
Similarly, the claims stood rejected as being anticipated by Chee et al. This rejection is respectfully traversed. Chee describes an Agrobacterium transformation protocol of soybean seed that is apparently conducted in the absence of media. Only a brief outline of the procedure is provided in Chee et al., but it does not disclose any such method as it might apply to wheat or maize immature embryos or embryogenic callus or soybean call cell suspension cultures or hypocotyls regions. Therefore, Chee et al does not disclose the presently claimed invention. This rejection must be withdrawn.

Finally, the claims also stood rejected as being anticipated by Somerville et al (US 568292). This rejection is respectfully traversed. The Patent Office directed Applicants attention to columns 25, 26 and 35 as well as Table 3. As referenced in these sections, it is clear that Somerville describes a transformation process that utilizes media throughout the process and not co-culture step without media is described. Thus, Somerville cannot be said to disclose each element of the now claimed invention. This rejection must be withdrawn.

Moreover, there is nothing in the cited references, whether taken singularly or in combination, that would render the amended claims obvious. None of the references provide any suggestion or motivation to conduct a co-culture process in the absence of media for wheat or maize immature embryos or embryogenic callus or soybean callus cell suspension cultures or hypocotyl regions. Therefore, the claims are not rendered obvious by the art of record and allowance is requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 or 1.17 as required by this paper to Deposit Account No. 13-4125. Applicant invites the Examiner to call the undersigned if clarification on any of this response, or if the Examiner believes that a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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February 5, 2003

Version of claims with markings to show changes made

1. (twice amended) A method for producing a fertile transgenic plant, comprising the steps of:
- (a) [introducing one or more genetic component(s) one desires to introduce into the genome of a plant by co-culturing] inoculating a regenerable plant cell or tissue selected from the group consisting of immature embryos or embryogenic callus from wheat or maize and hypocotyl sections or callus cell suspension cultures from soybean with *Agrobacterium* containing [said] a genetic component[(s)] capable of identifying a transformed plant cell or tissue to be introduced into the plant cell or tissue to produce an *Agrobacterium*-inoculated explant;
  - (b) co-culturing said *Agrobacterium* [and regenerable plant cells or tissues] inoculated explant [of step (a) under conditions which decrease the weight of said *Agrobacterium*- inoculated explant] in a vessel not containing media];
  - (c) identifying [or] and selecting a cell or tissue transformed with said genetic component [cell line]; and
  - (d) regenerating a fertile transgenic plant therefrom.
2. (amended) The method of claim 1 wherein the regenerable cell or tissue is an immature embryo and is precultured prior to step (a).
3. (amended) The method of claim 1 further comprising the addition of water in an amount of between 50 – 300 microliters to said vessel at the co-culture step[wherein the conditions for co-culture comprise removal of moisture from the *Agrobacterium*-inoculated explant wherein the weight of the explant is reduced by not more than 50%].
- Claim 4 has been cancelled.
5. (amended) The method of claim 3 wherein the weight of the *Agrobacterium*-inoculated explant is reduced by up to 30% during the co-culture period.

Claim 6 has been cancelled.

7. (amended) The method of claim 3 wherein the [moisture-limitation or removal period after inoculation with *Agrobacterium*] co-culture period is from one hour to about 6 days.
8. (amended) The method of claim 3 wherein the [moisture-limitation or removal period after inoculation with *Agrobacterium*] co-culture period is from about one day to about 4 days.
9. (amended) The method of claim 3 wherein the [moisture-limitation or removal period after inoculation with *Agrobacterium*] co-culture period is from about one day to about 3 days.

Claims 10-17 have been cancelled.